



# Maryland Department of Agriculture

*Office of Plant Industries and Pest Management*

**Martin O'Malley**, Governor  
**Anthony G. Brown**, Lt. Governor  
**Earl F. Hance**, Secretary  
**Mary Ellen Setting**, Deputy Secretary

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## PESTICIDE REGULATION SECTION

**401-841-5710**

March 19, 2014

Tawanda Maignan, Section 18 Team Leader, Registration Division  
Environmental Protection Agency  
Office of Pesticide Programs  
Risk Integration Minor Use,  
and Emergency Response Branch (7505P)  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington, Virginia 22202

Re: Request to Re-certify Repeat Section 18 13-MD-03 (apple), -04 (peach), -05  
(nectarine)

Dear Ms. Maignan:

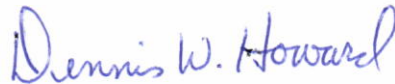
On behalf of the growers in the State of Maryland, the Maryland Department of Agriculture hereby requests EPA to re-certify, Specific Exemption 13-MD-03 (apple) - 04 (peach) – and 05 (nectarine) under Section 18 of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) to growers in Maryland to apply Brigade WSB Insecticide/Miticide (EPA Reg. No. 279-3108) manufactured by FMS Corporation, Bifenture EC Insecticide (EPA Reg. No. 70506-277) and Bifenture 10DF Insecticide (EPA Reg. No. 70506-57) manufactured by United Phosphours, Inc. We are requesting this action pursuant to Title 40 CFR, §166.20(b)(5).

MDA will, under the authority of the Maryland Pesticide Applicator's Law and FIFRA, ensure that the use of these pesticides under this exemption are in compliance with all requirements specified by EPA in approving this recertification request.

**The interim / final use report under 13-MD-03 (apple), - 04 (peach), - 05 (nectarine) is as follows:**

It is estimated that approximately 2,700 to 3,000 acres of apples, peaches or nectarines were treated in Maryland under this Section 18. No adverse effects were observed or reported and no violations were noted regarding the use of the product.

Sincerely,



Dennis W. Howard, Chief  
Pesticide Regulation Section

DWH: dh

cc: Bifenthrin (BMSB Section 18)  
EPA Reg. III

Attachments: Letters of Support from the registrant  
Draft Section 18 Label

**Request for an Expedited Emergency Exemption (Section 18) for Use of Bifenthrin against Brown Marmorated Stink Bug, *Halyomorpha halys* (Stål), in Eastern Fruits**

Submitted on March 13, 2014 by Bryan R. Butler Sr.

University of Maryland Extension

**SUMMARY**

Brown marmorated stink bug (BMSB) continues to represent a significant risk to tree fruit production in the mid-Atlantic region, with some variation in risk level among states, individual orchards within states, and crop type/variety. Bifenthrin is an important management tool for BMSB, having shown excellent efficacy against it in laboratory and field studies in 2011. No alternative management options for BMSB became available in the preceding 12-month period. The loss of endosulfan for use in stone fruits on July 31, 2012 further reduced grower options for managing BMSB in peaches. No changes in the bifenthrin use patterns approved in 2012 for pome and stone fruit crops are sought for 2014.

IR-4 performed studies for full Section 3 registrations for bifenthrin on apples (PR 11016) and peaches (PR 11017) in 2013. A letter from IR-4 outlining their support for pursuit of full registration and a list of residue studies they have performed on apple and peach. (attached)

**BMSB STATUS UPDATE**

The following narrative addresses the current status of BMSB as a pest of tree fruits in mid-Atlantic orchards, in support of an expedited emergency exemption request for use of bifenthrin in apple, peach and nectarine orchards in Virginia, West Virginia, Maryland, New Jersey, Pennsylvania, Delaware, North Carolina and the Hudson Valley of New York.

**Economic Impact in 2012 and 2013:** The information used to develop the following summary of BMSB impact to mid-Atlantic tree fruits in 2012 and 2013 was obtained from fruit processors (2), the National Peach Council, and research and extension entomologists from NC, VA, WV, DE, MD, PA, and NJ. Data from entomologists are based on grower and orchard surveys and/or the results from a research study. Quantifying the regional economic impact of BMSB injury to pome and stone fruit following the 2012 and 2013 seasons has proved to be virtually impossible due to 1) a general lack of BMSB-specific injury records, 2) an unknown overall impact on the grading and value of BMSB-injured fruit received by processors, and 3) a lack of data on wholesale and direct market value losses.

Collection of damage data has proven to be particularly problematic as the packers and processors do not specify the nature of the damage that causes culls; thus, it is impossible to clearly attribute culls to any one reason.



Another issue in several states was that the population surge in September and damage went unnoticed until it began to be removed from storage which will continue for some time. As a result, damage that was not visible at harvest was detected much later after apples had passed through channels of trade to packers and processors, who unfortunately do not typically collect pest-specific injury data relative to storage losses (i.e., these are apples that were already inspected, graded, and stored shortly after harvest—after they are in possession of the packer/processor, subsequent losses are simply culled out without rigorous data collection that would result in a downgrade to a grower, for example.)

It has been very difficult to clarify how the amount of damaged fruit translates into how great a monetary loss is experienced by the producer. ( i.e., does 20% damage really equal 20% total loss?) It can be total loss leading to rejection of a load or culling fruit for fresh market sales. It can end up on the ground in a pick your own operation, which is very difficult to track, or some fruit can be processed at a reduced value. Regardless, there is new loss to producers never experienced prior to the emergence of BMSB in the mid-Atlantic which has proven to be very difficult to manage with the materials currently available.

National Peach Council (February 28, 2013) (stone fruit) In our surveys of peach producers and crop insurance representatives in the mid-Atlantic region where the infestation of BMSB is most severe, we learned the following:

- 2012 crop damages ranged from 3 percent to 22 percent due to the feeding damage caused by the pest.
- While these damages were down slightly in some areas, others continue to experience severe injury as a result of the pest. The continued use of pesticides assists the growers in combating the pest; specifically bifenthrin helped to control the pest.
- Weather conditions from year to year have varied dramatically and remain an unknown factor in the quest to combat the BMSB. With the milder than normal winter that has concluded, the impact of the BMSB to the 2013 crop remains to be seen and the current use of bifenthrin and dinotefuran (Venom<sup>®</sup>) appears to have a positive impact on minimizing the damage to peaches caused by the BMSB.
- The states continuing to feel the largest impacts of the BMSB are Maryland, Virginia and Pennsylvania, with New Jersey close behind and the Hudson Valley of New York beginning to show over 20% damage to fruit and management of BMSB becoming increasingly important. North Carolina continues to be a frontier state with movement of BMSB into orchards increasing. When the March 2013 Non-citrus Fruits & Nuts 2012 Preliminary Summary is published by USDA, National Agricultural Statistics Service, we expect that it will show the value of the 2012 utilized production was up in most of these states (versus 2011) and this is directly tied to the price, which was up as well. However, the overall production costs due to increased use of spray materials to combat BMSB and the current labor situation mitigated any

actual bottom line gains to the peach producers in 2012. This is the third consecutive year that the growers have experienced this impact. New Jersey (April 18, 2012) “Out of 89 apple samples, an average of 9.75% damage was found, some fruit with over 10-15 feeding sites per fruit. Out of 38 peach and nectarine samples, an average of 20.6% fruit damage was found. Some blocks had up to 55% damaged fruit. ...those that are harvested after mid-August tended to be most highly damaged. Most damaged fruit in the worst infested blocks had over 10 feeding sites per fruit. ... 5% damage in peaches could cost a grower \$390/acre, while 20% damage may cost a grower over \$1,500/acre (based on late season wholesale prices @ \$13/box). Retail losses would be even higher.”

#### Brown Marmorated Stink Bug Damage in Southern New Jersey Orchards – 2013

##### Average Visual Damage from BMSB in South Jersey Orchards 2013 – Late Varieties

Average % Apple Damage	26
Maximum % Apple Damage	82
Average % Peach Damage Late Varieties	4.1
Maximum % Peach Damage Late Varieties	24

Maryland - Destructive fruit sampling of seven orchards that produced both apples and peaches in MD (estimated to represent about 20% of the MD industry) showed that average total crop loss to apples ranged from 3 to 82% (average = 20.06%). For peaches, the average total crop loss ranged from 0 to 39% (average = 10.53%). It should also be noted that this level of control was achieved using Thiodan which was not be available for use on peach in 2013 as growers supplemented bifenthrin to achieve acceptable level of control. A 2013 chemical trial at the Western Maryland Research and Education Center revealed up to 90 % fruit injury in apples in the program not using bifenthrin and in a program using bifenthrin damage was only 2% from destructive fruit sampling at harvest.

West Virginia - “... damage at harvest ranged from 1% - 19% in peaches (regional average = 7.3%). In apples, the range was from 0% - 22% (regional average = 7.1%). In terms of severity, some of the fruit was still marketed directly to consumers, some was downgraded from fresh market to processing, and some was culled completely. ... growers treated much more aggressively, increasing their overall costs in terms of materials, fuel, time, labor, and equipment maintenance. It should also be noted that this level of control was achieved using thiodan which will not be available for use on peaches in 2013. We did see substantial pressure throughout the season. Growers who were not aggressively spraying until the end of the season at all experienced increasing injury.”

In 2013 USDA ARS found in a season-long management program for BMSB in apple that was conducted on station, including 4ARM (2 complete) applications of bifenthrin at the maximum rate as part of the program. When evaluated in comparison of blocks not managed with any materials effective against BMSB (just did herbicides, fungicides and lep-materials). At harvest,



the % injury in the treated block was  $12.9\% \pm 4.4$  vs. the control at  $47.8\% \pm 5.4$ . This is only BMSB injury, but shows that injury increased 4-fold in the absence of BMSB-effective materials that included bifenthrin.

Delaware - Although the percentage damage in fruit from BMSB was a bit lower in 2012 versus 2011, with the freezes and price of fruit this past year being much higher, the dollar losses were higher than in 2012 v 2011. Apple prices were up probably 40% in 2012 v 2011 and peach prices were up probably 20% from the year prior. With that said, the dollar losses from BMSB damage would be higher in 2012 versus 2011. Growers calculated the loss from BMSB in fruit in 2012 to be a \$450 per acre loss.

The 2013 treatment costs for the Stink Bug treatments alone in Delaware averaged \$63 – 75/acre for peaches. Peaches -- Fruit damaged by stink bugs and placed in the cull category was about 10%. Once a peach is put in the cull category it is no longer has value.

Apples - The percentage of culls due to stink bug damage on the packing line was in the 15-20% range. Overall cull rate was 30% , so about half of that percentage was from BMSB. Growers indicate that if they do not follow a very regimented and "cadillac" spray program, the damage would be severely higher.

Apples put in the cull category are sold for processing at about 10-15% of the fresh market rate

A study involving entomologists from several institutions was conducted in fall 2011 and 2012 to measure the distribution of BMSB injury to late season apples in commercial apple orchards in VA, MD, PA and NJ. Fruit samples were taken from the top, middle and lower canopy of trees in border, interior and intermediate orchard zones in 18 orchards just before commercial harvest of the selected varieties. These samples were assessed for external and internal injury from BMSB. Across the orchards, total BMSB injury ranged from 3.11 to 79.6% (mean =  $32.4 \pm 4.9\text{SE}$ ) in 2011 and averaged 25.9% damage in 2012.

Overall, average % BMSB injury is 25.09. This is based on 450 fruits sampled per block.

VA	%injury	MD	%injury	PA	%injury	NJ	%injury
PG	3.11	B	17.33	D	79.55	H	27.77
BS	4.88	G	41.56	R A	24.4	H	14.44
JS	19.55	M	4.22	R B	8.66	S	17.11
				F	44.22	H	29.11
				B	40.44		
<b>Ave.</b>	<b>25.09</b>						

In summary, BMSB injury was lower overall in 2011 than in 2010 and varied widely among states and orchards. Although lower levels of fruit injury in many orchards likely reduced the direct economic impact of BMSB, the increased cost of spray programs was widely reported. Some states within the region (e.g., NC and NY) continued to report low levels of injury, while highest injury reports continued to be from areas most heavily impacted in 2010.

**Response to BMSB by Tree Fruit Producers in 2012 and 2013:** Many growers implemented very aggressive insecticide-based management programs in 2012 and 2013, particularly in late August into September. These programs often involved much more frequent insecticide applications than would be used typically and the use of products that would not ordinarily be considered appropriate for post-bloom applications (based on their potentially disruptive effects on natural enemy populations). In general, these programs yielded much lower levels of BMSB injury at harvest than in 2010 but higher than in 2011, with more damage than expected showing up on fruit being removed from storage. However, they are widely viewed by growers and researchers as being unsustainable, adding cost and significantly reversing the cumulative effects of integrated pest management practices. Possibly, some of the damage that has shown up late could have been avoided but bifenthrin was only available starting in July of last year. With bifenthrin, the early season damage could be prevented and its use may also help keep populations lower so there is a smaller autumn population to manage. This level of damage may also be more severe in 2014, particularly on peach as endosulfan loses its EPA registration. Without bifenthrin as a tool for BMSB control, damage levels could possibly rise to 2010 levels which could have a devastating effect on producers in the mid-Atlantic. There is a very real potential that some growers will actually run out of ANY tools due to exhausting seasonal maximums on existing products, and the loss of endosulfan on peaches.

**Current BMSB Pest Status:** Each season since 2010 has been different regarding BMSB overwintering and population development during the season. It has proven very difficult to predict pressure or impact but suffice to say there has been injury every year in orchards across the mid-Atlantic. The numbers of adult BMSBs seeking overwintering sites in private homes and other structures was significantly higher throughout the mid-Atlantic region in fall 2012 and 2013. This could contribute to higher levels of injury to peaches and apples in 2014. Although there were some reports of predation and parasitism of BMSB in 2011, 2012 and 2013 it is unclear that the effects of these agents were sufficiently widespread or prevalent to impact the overall population.

Despite what appeared to be lower numbers of overwintering BMSB in 2011, the population built during the entire growing season with many locations experiencing very high numbers in orchard from late August through the completion of harvest in apples. Based on our collective experiences in 2010, this risk is of significant concern and does not warrant complacency. Recently, overwintering BMSB have been collected from areas containing many thousands of individuals sheltering in barns and outbuildings adjacent to commercial tree fruit orchards in Maryland, and there are similar circumstances encountered in other states. New information on



the bug's use of natural overwintering harborages in forests has been generated recently. The effects of weather on BMSB survivorship during winter are unknown. With only three years of experience with BMSB in the mid-Atlantic region, it is impossible to predict the rate at which populations will build and spread in 2014 and the extent to which it will threaten fruit orchards at various points throughout the season. It does appear that baseline BMSB pressure has varied substantially among orchards within a general area in the mid-Atlantic states for, as yet, unknown reasons. This, coupled with the loss of endosulfan on stone fruit, puts fruit at continued increased risk 2014 creating the need for products to fill that void. The biggest stone fruit grower in Virginia said to me at an extension meeting last week that he feels that he can manage BMSB injury in peaches and nectarines "... if we have bifenthrin."

**Management Recommendation for 2014:** BMSB management recommendations for 2014 continue the use of alternate-row-middle sprays to maintain fresher residues. This recommendation follows grower experiences in affected states and research data from 2012 suggesting that the residual activity of many products against BMSB is relatively short. Although trapping strategies are making great strides, they have not advanced to the point of being used as a predictive tool and thus grower decisions have to be made based on either actual presence of BMSB in the orchard or damage that has already occurred. For these reasons, it is imperative that they have access to the most effective materials to limit damage to their crop.

- Efficacy comparisons between bifenthrin and currently registered insecticides that are conducted under actual growing conditions indicate in both field and laboratory studies that bifenthrin continues to be one of the most effective options for controlling BMSB. (See attached)

*Field-Based Residual Efficacy of Selected Insecticides Against Brown Marmorated Stink Bug,*

*Halyomorpha halys (Stål)*

January 7, Tracy C. Leskey

USDA-ARS

Appalachian Fruit Research Station

2217 Wiltshire Road

Kearneysville, WV 25430-2771



ENCLOSURES

MANUFACTURER'S

LETTERS OF SUPPORT

AND

DRAFT SECTION 18

DIRECTIONS FOR USE



FMC Corporation  
1735 Market Street  
Philadelphia, PA 19103  
USA

215.299.6000  
fmc.com

March 10, 2014

Bryan R. Butler, Sr.  
Extension Agent  
Agriculture and Natural resources  
University of Maryland Extension  
700 Agriculture Center  
Westminster, MD 21157

RE: Section 18s Letter of Support

Dear Mr. Butler:

As the registrant for Brigade WSB Insecticide/Miticide (EPA Reg. No. 279-3108), FMC fully supports the proposed renewals of Section 18 emergency exemption use of the product in Maryland and other States on apples, peaches, and nectarines to control the Brown Marmorated Stink Bug (*Halyomorpha halys*).

FMC is committed to working with IR-4 in their program to obtain Section 3 registrations for use of bifenthrin on pome and stone fruits. IR-4 conducted field magnitude of the residue trials on apples (PR 11016) and peaches (PR 11017) in 2013.

Please contact me by telephone at 215-299-6717 or by email at [tim.formella@fmc.com](mailto:tim.formella@fmc.com) if you have any questions on this matter.

Sincerely,

A handwritten signature in black ink that reads "Timothy M. Formella".

Timothy M. Formella  
Senior Product Registration Manager  
FMC Corporation



## RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certificate



### Section 18 EXEMPTION

FOR DISTRIBUTION  
AND USE ONLY IN  
MARYLAND

EPA File Symbols:

14-MD-\_\_\_\_,

14-MD-\_\_\_\_,

14-MD-\_\_\_\_

EMERGENCY CALLS: 800-331-3148

ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE REGISTERED  
PRODUCT LABEL FOR BRIGADE WSB (EPA REG. NO. 279-3108) ARE TO BE FOLLOWED

THESE DIRECTIONS FOR USE MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF  
PESTICIDE APPLICATION.

This exemption is effective from \_\_\_\_\_, 2014 through \_\_\_\_\_, 2014

Crop	Pest Controlled	Rate of Application
Apples, Peaches, Nectarines	Brown Marmorated Stinkbug	12.8 - 32 oz/A (0.08 - 0.2 lb ai/acre)

Directions for Use: Application must be made post-bloom, by ground only as a dilute (minimum 200 gallons of finished spray per acre) or concentrate (minimum 50 gallons of finished spray per acre) in sufficient water to provide thorough coverage. Do not apply this product until after petal fall.

Restrictions: Do not apply more than 32 oz/acre (0.2 lb ai/acre) per application. Do not apply more than 72 oz/A (0.5 lb ai/acre) per year. Do not make applications less than 30 days apart. Do not graze livestock in treated areas. Do not apply within 14 days of harvest. Do not allow entry into treated areas for 12 hours following application.

Any adverse effects resulting from the use of Brigade WSB under this emergency exemption must be immediately reported to the Maryland Department of Agriculture.



FMC Corporation  
Agricultural Products Group  
1735 Market Street  
Philadelphia, PA 19103

Brigade and FMC -FMC Trademarks  
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**United Phosphorus, Inc.**  
Sherry B. Hutcheson  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406  
Phone: (229) 247-9041

March 18, 2014

Dennis Howard  
Program Manager  
Maryland Department of Agriculture  
Pesticide Regulation Section  
50 Harry S. Truman Parkway  
Annapolis, MD 21401

**RE: Section 18 Letter of Support for Bifenture EC and Bifenture 10DF Insecticides**

Dear Mr. Howard

United Phosphorus, Inc. (UPI) fully supports the Section 18 emergency exemption for use of Bifenture EC and Bifenture 10DF Insecticides, containing the active ingredient bifenthrin for control of Brown Marmorated Stink Bug (*Halyomorpha halys*) on apples, peaches and nectarines in Maryland (and other supporting States). The products we supply are:

- Bifenture EC – EPA Reg. No. 70506-57
- Bifenture 10DF – EPA Reg. No. 70506-227

UPI will be able to supply product to meet the market demand for 2014.

If you have any questions, please feel free to contact me directly at 229-247-9041 or [sherry.hutcheson@uniphos.com](mailto:sherry.hutcheson@uniphos.com). If you have technical questions about the product and control of BMSB, please contact Tony Estes at 864-202-7526 or [tony.estes@uniphos.com](mailto:tony.estes@uniphos.com).

Thank you for your time and consideration.

Best regards,

A handwritten signature in cursive script, appearing to read 'Sherry B. Hutcheson', written in black ink.

Sherry B. Hutcheson  
Regulatory Affairs Manager

Cc Tony Estes



**For distribution and use only in Maryland under an emergency exemption authorized under Section 18 of FIFRA**

All applicable directions, restrictions, and precautions on the EPA registered product labels as well as those on these directions for use must be followed. These directions for use must be in the possession of the user at the time of pesticide application.

**Products:** Bifenture® EC Agricultural Insecticide (EPA Reg. No. 70506-57)  
Bifenture® 10DF Insecticide/Miticide (EPA Reg. No. 70506-227)

**Firm Name:** United Phosphorus, Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406

**Crop/Site/Commodity:** Apples, Peaches, Nectarines

**File Symbol:** XXXXXXXXXXXXXXXXXXXXX

**Target Pest/Problem:** Brown Marmorated Stink Bug (*Halyomorpha halys*)

**Dosage:** Apply 5.12 – 12.8 fl ozs (0.08-0.20 lbs ai) per acre of **Bifenture EC Agricultural Insecticide** (EPA Reg. No. 70506-57), **OR**  
Apply 12.8 – 32.0 ozs (0.08-0.20 lbs ai) per acre of **Bifenture 10DF Insecticide/Miticide** (EPA Reg. No. 70506-227)  
Use higher rates under heavy insect pressure.

**Dilution Rate:** **By Ground:** Apply as a dilute spray (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre).  
For best control, thorough coverage is necessary.

**Frequency/Timing of Applications:**

Applications should be applied when populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Do not apply more than 32 fl ozs (0.50 lbs ai) of **Bifenture EC Agricultural Insecticide** or 80 ozs (0.50 lbs ai) of **Bifenture 10DF Insecticide/Miticide** per acre per season.

Apply as necessary to maintain control using a minimum of 30-day spray intervals.

Do not apply this product until after petal fall.

Do not graze livestock in treated orchards or cut treated cover crops for feed.

**Restricted Entry**

**Interval (REI):** 12 hours

**Pre-Harvest Interval**

**(PHI):** 14 days

**Restricted Use Pesticide:** When used in Maryland, applications can only be made by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators certification.

This exemption is effective \_\_\_\_\_ through \_\_\_\_\_.



Providing Safe and Effective Pest  
Management Solutions for  
Specialty Crop Growers

IR-4 Headquarters  
Rutgers, The State University of New Jersey  
500 College Road East, Suite 201 W  
Princeton, NJ 08540  
732.932.9575  
fax: 609.514.2612  
ir4.rutgers.edu

February 27, 2014

To: Bryan R. Butler Sr.  
Extension Agent, Agriculture and Natural Resources  
University of Maryland Extension  
700 Agriculture Center  
Westminster, Maryland 21157

From: Keith Dorschner, Ph.D.  
Entomology Program Manager/IR-4 Project

RE: IR-4 support for registration of bifenthrin on apple and peach  
Progress towards registration in support of a potential Section 18

Dear Bryan,

The IR-4 Project has a national research effort for the full Section 3 registration of bifenthrin insecticide on apples and peaches. These studies are extremely important for the control of Brown Marmorated Stink Bug (BMSB), an invasive species causing great harm to these crops in Maryland as well as other states.

IR-4 initiated Magnitude of the Residue studies in 2013 for bifenthrin on peach and apple. For peach, field trials were conducted in NJ (3 trials), NY, CA (5 trials), NC (2 trials), TX, MI, AR. Apple trials were conducted in NJ (3 trials), ID, CA, CO, WA (3 trials), NY, MI (2 trials), and NC. The use pattern tested was the same for both crops: 3 applications at a 21 day treatment interval with the last application 14 days before harvest. The first application was made at a rate of 0.1 lb active ingredient (a.i.) per acre and the last two applications were made at 0.2 lb a.i./acre/application.

The plots were harvested and apple and peach samples were shipped frozen to the IR-4 Analytical Facility at the University of Florida for analysis. One trial provided apple samples for processing into juice and wet pomace at the University of Idaho Food Technology Center in Caldwell, Idaho. These samples were also shipped frozen to the University of Florida lab. Samples have not yet been analyzed for bifenthrin residues.

IR-4 fully supports the registrations of bifenthrin on peach and apple for the control of BMSB. Please let me know if I may provide additional information.

Sincerely,

Keith Dorschner

IR-4 Entomology Program Manager

*Major funding for IR-4 is provided by Special Research Grants and Hatch Act Funds from USDA-CSREES,  
in cooperation with the State Agricultural Experiment Stations, and USDA-ARS.*

THE STATE UNIVERSITY OF NEW JERSEY  
**RUTGERS**